

Appl. No. 09/956,954
Amdt. dated July 1, 2005
Reply to Office Action of March 21, 2005

In contrast, the present invention recognizes that a noise level measured on a signal from a source, such as a microphone with unknown noise sensitivity, may be inaccurate and for a microphone with an unknown noise sensitivity "the sound pressure level at a given handset can no longer be derived from an electrical signal level". See, for example, paragraph [0060] of the present invention. The present invention accounts for this imprecision in the noise level estimate. As presently claimed in claim 21, "a noise adaptive gain controller for generating a noise adaptive gain G_N that is a function of the near-end noise estimate and a noise sensitivity coefficient, the noise sensitivity coefficient is set to a variable value to account for variability in the near-end noise level estimate resulting from imprecise measurement of the near-end noise ". See, for example, paragraphs [0065] and [0066] of the present invention.

Nothing in Matt teaches or makes obvious an apparatus or method as presently claimed which addresses the problems of adaptive noise compensation of signals utilizing an imprecise measure of the near-end noise as presently claimed. As an example, some microphones may be designed to pick up less noise from the side. Analysis of the signals produced by such microphones will generate underestimates of actual noise levels when the microphone is held by a user so that the noise is predominately from the side or when a noise source moves to be from the side. As another example, sensitivity may differ significantly from microphone to microphone. If noise compensation is realized in a network, the noise related sound pressure level at a given handset may be variably imprecisely measured by measuring the electric signal level in the network. See, for example, paragraph [0060] of the present invention. The ability to address such variability is in contrast with Matt where if the long-time average magnitude signal

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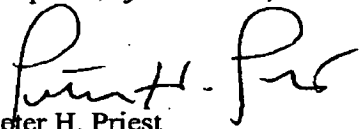
xlam provides an imprecise measure of near-end noise, then, for example, the generation of the coupling estimator 3.6 output dll, the coupling signal thrs, and the speech signal S will all be inaccurate and not responsive to the actual ambient noise. Matt does not recognize this problem and treats the "ambient noise" as "generally more uniform" and is silent with regards to the precision of noise measurements. Matt, col. 6, lines 1-24. The claims are not taught, are not inherent, and are not obvious in light of Matt.

With regard to Sjöberg, no detailed guidance is provided by this patent with regard to the adjusting mechanism used for adjusting an audio signal. Further, Sjöberg does not recognize the problems associated with having an inaccurate representation of ambient noise, nor how to deal with such problems as presently claimed. Consequently, Sjöberg does not teach and does not make obvious the claims as presently amended.

Conclusion

All of the presently pending claims, as previously amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,


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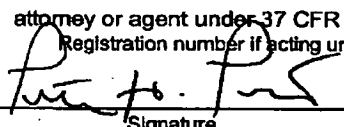
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PTO/SB/22 (12-04)

Approved for use through 7/31/2006. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)		Docket Number (Optional) 117.0003	
FY 2005			
(Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).)			
Application Number 09/956,954		Filed 09/21/2001	
For Noise Compensation Methods and Systems for Increasing the Clarity of Voice Communications			
Art Unit 2643		Examiner Alexander Jamal	
This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.			
The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):			
<input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))	Fee \$ 120	Small Entity Fee \$ 60	\$ 120.00
<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$ 450	\$ 225	\$
<input type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$ 1,020	\$ 510	\$
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$ 1,590	\$ 795	\$
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$ 2,160	\$ 1,080	\$
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.	07/05/2005 STEUMEL1 00000078 501058 09956954		
<input type="checkbox"/> A check in the amount of the fee is enclosed.	02 FC:1251 120.00 DA		
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.			
<input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.			
<input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-1058. I have enclosed a duplicate copy of this sheet.			
WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.			
I am the <input type="checkbox"/> applicant/inventor.			
<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).			
<input checked="" type="checkbox"/> attorney or agent of record. Registration Number 30210			
<input type="checkbox"/> attorney or agent under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34			
Signature 		Date July 1, 2005	
Peter H. Priest		919-806-1600 x1	
Typed or printed name		Telephone Number	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.			
<input checked="" type="checkbox"/> Total of 3 forms are submitted.			

This collection of information is required by 37 CFR 1.138(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Etter

Serial No.: 09/956,954

Filed: September 21, 2001

For: NOISE COMPENSATION METHODS AND SYSTEMS FOR INCREASING
THE CLARITY OF VOICE COMMUNICATIONS

Group: 2643

Examiner: Alexander Jamal

Durham, North Carolina
July 1, 2005Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**RECEIVED
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CERTIFICATION OF FACSIMILE TRANSMISSION

JUL 05 2005

Sirs:

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax. No. 703-872-9306 on the date set forth below

1. RCE Transmittal (1 page)
2. Petition for Extension of Time (1 page)
3. Preliminary Amendment (15 pages).

Vickie Diane Hawkins

Printed name of person signing

Vickie Diane Hawkins
Signature

Date: July 1, 2005

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Additionally, dependent claims 28 as amended herein states that "the corrugated board is a material which is substantially impervious to the transmission of water therethrough." Claim 28 was previously rejected as being anticipated by Atkins. Applicants respectfully assert that the mesh material 20 disclosed in Atkins is incapable of preventing the transmission of water therethrough as in Applicants' corrugated board of claim 28. In fact, Atkins explicitly teaches that the course mesh material 20 is a "fluid conducting medium" (col. 4, lns. 55-67, as well as numerous other places in Atkins). Contrary to the "interpretation" provided in the Office Action, the fluid conducting medium 20 of Atkins does not hold water. The term "impervious" as used in dependent claim 28 would be understood by one of ordinary skill in the art according to its standard dictionary definition as "being incapable of penetration or not admitting of passage therethrough." Applicants respectfully asserts that the fluid conducting course mesh medium 20 of Atkins is not impervious to the transmission of water therethrough.

For at least these reasons, Applicants respectfully assert that the § 102 rejection of claims 1, 4-6, 9-10, 21-24 and 27-30 based on Atkins is improper and/or has been overcome.

Claims 2-3, 7-8 and 11-12 were rejected under § 103 as being unpatentable over Atkins in view of Waggoner (U.S. Patent No. 6,355,333). The Office Action acknowledges that Atkins fails to disclose specific features of Applicants' claims, but that Waggoner allegedly teaches one of ordinary skill in the art how to modify Atkins to arrive at Applicants' invention of claims 2-3, 7-8 and 11-12. Applicants respectfully

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traverses the § 103 rejections in light of the amendments to the claims and remarks presented herein.

Claim 11 is the only independent claim of those rejected under § 103. Specifically, the rejection alleges that the Waggoner reference teaches a corrugated board with a plurality of vertical chambers and the channels are likewise generally vertical and each channel has a spine juxtaposed to the outer face of the inner wall and interposed between adjacent pair of the generally vertical chambers "or a sheet with randomly polyhedral pattern (or vertical channels) behind an exterior surface (col. 11, lns. 29-31)." Applicants respectfully assert that the rejection is only accurate in part with respect to the disclosure of the Waggoner reference as one of ordinary skill in the art would understand it.

Specifically, Applicants agree that Waggoner discloses a "barrier sheet" which is "embossed with a random polyhedral pattern" as shown in Figs. 11-15 of that reference. However, Applicants respectfully dispute that such a disclosure teaches the corrugated board with vertical chambers, channels and spine structure as disclosed and claimed in independent claim 11 and dependent claims 2-3, 7-8 and 12. In fact, as shown in Fig. 11-15 of Waggoner, the random pattern imposed upon the sheet is distinctly different from the regular and systematic pattern of channels, chambers and spines claimed in Applicants' invention. To highlight these distinctions, Applicants have introduced new claim 36 which explicitly claims that the channels and spines extend substantially uninterrupted the full height of the corrugated board and produce a uniform and repeating pattern of the corrugated board. This is distinctly different from

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the random polyhedral pattern disclosed in Waggoner and shown in Figs. 11-15 of that patent.

Moreover, the random pattern of the sheet in Waggoner does not offer the ability to permit the escape of fluid trapped in the cavity as required by the plurality of channels recited in each of the claims rejected under § 103. The random polyhedral pattern would serve to trap fluid contained therein as opposed to permitting its escape as recited in the rejected claims.

Additionally, the member in Waggoner is not a "corrugated board" as understood by one of ordinary skill in the art and previously described with respect to the § 102 rejections herein above. Moreover, each of the claims rejected herein has been amended to recite that the spines are aligned with the studs of the inner wall for attachment of the corrugated board at the spines to selected studs. Applicants respectfully assert that while Waggoner discloses studs of the inner wall, the random polyhedral pattern of the barrier sheet disclosed in Waggoner does not provide for the alignment of the spines as in Applicants' invention with those studs for secure attachment by anchors or other fasteners.

A primary advantage of Applicants' corrugated board is the systematic and repeated pattern of the spines which are spaced so that selected spines are automatically aligned with the studs when the corrugated board is properly installed on the inner wall. In other words, an installer would readily understand that the spines of the corrugated board in Applicants' claimed invention are spaced, for example, on four inch centers and every fourth spine would be aligned with a stud spaced 16 inches from the adjacent stud.

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Therefore, a much more simplified and straight forward installation process is available with the corrugated board as claimed herein wherein the studs are spaced at regular intervals and not a random arrangement as in the barrier sheet in Waggoner. The spines in each of the claims rejected herein are described as being generally linear which is contrary to the random polyhedral pattern shown in Figs. 1-15 and disclosed in Waggoner, contrary to the assertions in the Office Action.

For all these reasons, Applicants respectfully assert that the § 103 rejections based on Atkins and Waggoner are improper and/or have been overcome herein.

Applicants' have introduced new claims 31-36 herein to further highlight various distinctions of Applicants' invention relative to the prior art of record, particularly Atkins and Waggoner. Applicants note that the alleged corrugated boards of Atkins and Waggoner each extend to the foundation; whereas, Applicants' claimed corrugated board terminates short of the foundation and is spaced therefrom as shown clearly in Fig. 1. This feature is explicitly claimed in new claim 32.

The distinguishing features of Applicants' invention as recited in new claims 33 and 36 have previously been discussed and provide clear distinctions relative to the alleged corresponding structure in Atkins and Waggoner.

Likewise, claim 34 states that the corrugated board material is impervious to the transmission of water there through to clearly distinguish it from the applied prior art. Finally, claim 35 states that only the spines of the corrugated board are in contact

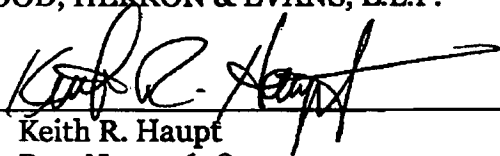
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with the inner wall, a feature which is clearly contrary to the Atkins and Waggoner references.

Applicant respectfully requests a Notice of Allowance with respect to the pending claims at the Examiner's earliest convenience. If the Examiner feels that any matter in this case requires further attention prior to issuing a Notice of Allowance, he is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. Moreover, Applicant respectfully requests that this amendment be entered pursuant to 37 CFR § 1.116 in that it does not introduce any new issues and places the claims in condition for allowance and/or better condition for appeal, if needed.

Respectfully submitted,

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